

# Bureau of Land Management

Amarillo Field Office

Helium Operations

Statistical Report  
for  
January - 2004



## *Distribution:*

Fluid Minerals Group Manager, Washington Office  
NMSO, New Mexico State Director  
NMSO, Associate State Director  
NMSO, Petroleum Engineer  
Field Manager, Amarillo Field Office  
Assistant Field Managers (3)  
Team Leaders  
-Federal Leased Lands  
-Resources Evaluation & Gas Analysis  
-Natural Gas Engineering

## *List of Tables*

Table 1 - Summary of Helium Operations  
\* **Table 2 - In Kind Helium Sales**  
Table 2.1 - Open Market/Reserve Sell-down  
Helium & Natural Gas Sales  
Table 3 - Helium Resources Evaluation  
\* **Table 4 - Federal Acquisition & Storage Operations**  
\* **Table 4.1 - Helium Storage Contract Activity**  
Table 5 - Pipeline & Cliffside Field Operations  
Table 6 - Helium Enrichment Unit Operations

Amarillo, Texas

Issued: April 13, 2004

**\* Revised \***

**\*Tables include COMPANY PROPRIETARY INFORMATION (shaded) and is for internal use only.  
This information shall not be released unless express permission is authorized.**

Approved for distribution: Nelson R. Bullard

Date: 04/13/2004

Table 1 - Summary of Helium Operations

January - 2004

In Kind Sales		NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind	Charges Billed (\$)**	
Total month		0	0	0	0	0	0	0	0	\$0	
Total FYTD		27,606	1,527	0	9,324	4,141	9,099	51,698	50,898	\$2,671,822	
Total CYTD		0	0	0	0	0	0	0	0	\$0	
In Kind Transfers								Month	FYTD	CYTD	Cumulative
Transferred								0	46,562	0	1,206,500
Volume outstanding								50,898			
Open Market Sales				Award Volume		Outstanding		Sales	Charges Billed (\$)**		
Total month				0		(43,900)		43,900	\$2,370,600		
Total FYTD				675,600		612,800		62,800	\$3,391,200		
Total CYTD				0				43,900	\$2,370,600		
Open Market Transfers								Month	FYTD	CYTD	Cumulative
Transferred								18,900	428,900	18,900	1,658,900
Volume outstanding								43,900			
Natural Gas/Liquids Sales		Natural Gas (Mcf)		NGLs (gal)		Decatherms		\$/unit	Charges Billed (\$)**		
Total month		253,409		41,950		237,585		\$5.4834	\$1,297,084		
Total FYTD		747,221		91,160		811,315		\$4.8484	\$3,914,460		
Total CYTD		253,409		41,950		237,585		\$5.4834	\$1,297,084		
Purchased Helium	Month			Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative	
	Helium Mixture	Helium Percent	Helium	Low Purity Helium		Below 50% Helium		Contained Helium			
	Total purchased									32,176,145	
	Helium transferred		18,900					475,462	18,900	4,850,740	
	Purchased helium in storage									27,325,405	
Private Plant Activity											
Accepted in storage system		106,194	66.5%	70,604	1,913	5,440	(97)	(941)	269,049	70,604	8,073,276
Redelivered from storage system		(201,967)	69.6%	(140,563)	0	0	0	5	(615,339)	(140,563)	(12,227,717)
Total apparent crude produced^		196,668	71.5%	140,683					554,438	140,683	7,731,679
Total apparent crude refined^		(293,074)	72.0%	(211,104)					(901,191)	(211,104)	(12,441,546)
Storage Contract Activity	Metered Gas			Transferred Gas			Stored Helium	Charges Billed (\$)**			
	Gross Gas	Helium	Helium			Helium					
	Month		FYTD	CYTD	Cumulative	Month	Cumulative	EOM	Month	FYTD	
	Crude Acquired	106,054	70,507	268,108	70,507	25,443,116	114,104	27,874,869			
	Crude Disposed	201,964	140,563	615,334	140,563	24,053,092	95,204	25,651,882		\$341,171	
Grade-A Rdlvrd	0	0	0	0	1,478,718	0	0		\$56,576	Storage Fees	
Net/Balance	(95,910)	(70,056)	(347,226)	(70,056)	(88,694)	18,900	2,222,987	2,134,293	\$397,746	RMF Fees	
Bush Dome Reservoir Operations		Month		Fiscal Year		Since Start of Conservation Program		Since Field Discovery			
Conservation gases from all sources		Gross	Net	Gross	Net	Gross	Net	Gross	Net		
In underground storage, beg. of period		40,963,079	29,512,296	41,328,824	29,775,145	490,620	490,620	0	0		
Net Activity		(55,956)	(38,652)	(421,701)	(301,502)	40,416,503	28,983,024	40,907,123	29,473,644		
Total in underground storage		40,907,123	29,473,644	40,907,123	29,473,644	40,907,123	29,473,644	40,907,123	29,473,644		
Native Gas											
Total in place, beg. of period		205,402,044		206,235,982		265,724,755		318,727,000			
Net Activity		(440,988)		(1,274,926)		(60,763,699)		(113,765,944)			
Total in place, end of month		204,961,056		204,961,056		204,961,056		204,961,056			
Native Gas plus Conservation Gases											
Total gases in place, beg. of period		246,365,122		247,564,806		266,215,375		318,727,000			
Net Activity		(496,943)		(1,696,627)		(20,347,196)		(72,858,821)			
Total gases in place, end of month		245,868,179		245,868,179		245,868,179		245,868,179			
Helium Resources Evaluation					Month		FYTD				
Revenue Collected from Federal Lease Holds					\$589,585		\$2,777,251				
Helium Sample Collection Report for month					Submitted	0	Received	0	Analyzed	93	
Helium Enrichment Unit Operations		Month			FYTD			Cumulative			
		Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium	
Gas Processed											
Plant feed		503,505	19.0%	95,620	1,488,865	16.6%	247,272	4,250,578	14.1%	600,136	
Helium product		122,131	75.9%	92,678	305,833	76.7%	234,719	732,050	76.1%	557,239	
Residue natural gas		256,406	0.1%	142	724,955	0.0%	157	2,254,599	0.0%	168	
Vent, flare & plant losses		127,988	2.2%	2,800	470,440	2.6%	12,396	1,596,187	2.7%	42,729	
Helium recovery efficiency				97.1%			95.0%			92.9%	

\* Volumes in Mcf at 14.7 psia &amp; 70°F; all other volumes in 14.65 psia &amp; 60°F

\*\*Rounded to nearest dollar

^ Other sources of helium are accessed but data are not available

Table 2 - In Kind Helium Sales

January - 2004

	NASA*	Navy*	Army*	Air Force*	DOE*	Other Fed*	Subtotal*	In Kind+	Charges Billed (\$) **	
In Kind Helium										
Aeriform, Contract no. INC98-0101 (billed quarterly)										
Month										
FYTD										
AGA Gas, Inc., Contract no. INC98-0102										
Month										
FYTD										
AirGas, Inc., Contract no. INC98-0103										
Month										
FYTD										
Air Liquide S.A., Contract no. INC98-0104										
Month										
FYTD										
Air Products, L.P., Contract no. INC98-0105										
Month										
FYTD										
BOC Gases, Contract no. INC98-0106										
Month										
FYTD										
Corp Brothers, Inc., Contract no. INC98-0107										
Month										
FYTD										
FIBA Technologies, Inc., Contract no. INC98-0108										
Month										
FYTD										
General Air Service & Supply Co., Contract no. INC98-0109										
Month										
FYTD										
Jack B. Kelley Co., Contract no. INC98-0110										
Month										
FYTD										
Portland Welding Supply, Contract no. INC98-0111										
Month										
FYTD										
Praxair, Inc., Contract no. INC98-0112										
Month										
FYTD										
United States Welding, Inc., Contract no. INC98-0113										
Month										
FYTD										
Tri-Gas, Inc., Contract no. INC98-0114										
Month										
FYTD										
Messer Griesheim Ind., Contract no. INC00-0115										
Month										
FYTD										
Total month	0	0	0	0	0	0	0	0	\$0	
Total FYTD	27,606	1,527	0	9,324	4,141	9,099	51,698	50,898	\$2,671,822	
Total CYTD	0	0	0	0	0	0	0	0	\$0	
Cumulative	732,588	19,929	58	177,843	185,577	161,176	1,277,171	1,257,323	\$62,908,077	
In Kind Transfers							Month	FYTD	CYTD	Cumulative
Transferred							0	46,562	0	1,206,500
Volume outstanding							50,898			

\* Volumes in Mcf at 14.7 psia & 70°F  
+ Volumes in Mcf at 14.65 psia & 60°F

\*\*Rounded to nearest dollar

COMPANY PROPRIETARY INFORMATION

Table 2.1 - Open Market/Reserve Sell-down  
Helium & Natural Gas Sales

January - 2004

	Award Volume*	Outstanding*	Sales*	Charges Billed (\$) **
<b>Conservation Helium</b>				
<b>Air Liquide S.A.</b> (billed quarterly)				
Month	0	0	0	\$0
FYTD	0	0	0	\$0
Cumulative	50,000		50,000	\$2,625,000
<b>Air Products, L.P.</b>				
Month	0	0	0	\$0
FYTD	0	0	0	\$0
Cumulative	680,400		680,400	\$35,721,000
<b>BOC Gases</b>				
Month	0	0	0	\$0
FYTD	550,000	550,000	0	\$0
Cumulative	1,384,000		834,000	\$43,785,000
<b>Keyes Helium Co.</b>				
Month	0	(18,900)	18,900	\$1,020,600
FYTD	75,600	37,800	37,800	\$2,041,200
Cumulative	151,200		113,400	\$6,010,200
<b>AGA Gas, Inc.</b>				
Month	0	(25,000)	25,000	\$1,350,000
FYTD	50,000	25,000	25,000	\$1,350,000
Cumulative	50,000		25,000	\$1,350,000
<b>Total month</b>	0	(43,900)	43,900	\$2,370,600
<b>Total FYTD</b>	675,600	612,800	62,800	\$3,391,200
<b>Total CYTD</b>	0		43,900	\$2,370,600
<b>Cumulative</b>	2,315,600		1,702,800	\$89,491,200
<b>Open Market Transfers</b>				
	Month	FYTD	CYTD	Cumulative
Transferred	18,900	428,900	18,900	1,658,900
Volume outstanding	43,900			

\* Volumes in Mcf at 14.65 psia & 60°F

	Natural Gas (Mcf) ***	NGLs (gal)	Decatherms	\$/unit	Charges Billed (\$) **
<b>Natural Gas/Liquids Sales</b>					
<b>El Paso Natural Gas</b> Provides Firm/Interruptible natural gas transportation services (billed monthly)					
Month	252,033		277,154	(\$0.0991)	(\$27,460)
FYTD	707,906		781,068	(\$0.1406)	(\$109,841)
Cumulative	1,899,327		2,103,416	(\$0.1306)	(\$274,601)
<b>Minerals Management Service</b> Provides natural gas marketing services under a Cooperative Agreement					
Month				\$0.0000	\$0
FYTD				\$0.0000	\$0
Cumulative				(\$0.0066)	(\$12,448)
<b>Cenergy Marketing</b>					
Month	252,033	0	233,111	\$5.577021	\$1,294,378
FYTD	743,163	0	801,655	\$4.970015	\$3,965,101
Cumulative	1,979,162	0	2,078,529	\$4.995629	\$10,334,388
<b>Seminole Transportation &amp; Gathering</b>					
Month	0	41,950	4,474	\$6.742566	\$30,166
FYTD	0	91,160	9,660	\$6.128391	\$59,200
Cumulative	0	91,160	9,660	\$6.128391	\$59,200
<b>Total month</b>	252,033	41,950	237,585	\$5.483389	\$1,297,084
<b>Total FYTD</b>	743,163	91,160	811,315	\$4.848421	\$3,914,460
<b>Total CYTD</b>	252,033	41,950	237,585	\$5.483389	\$1,297,084
<b>Cumulative</b>	1,979,162	91,160	2,088,189	\$4.863406	\$10,106,539

\*\*\* Volumes in Mcf at 14.73 psia & 60°F

\*\*Rounded to nearest dollar

# Table 3 - Helium Resources Evaluation

January - 2004

All Volumes in Mcf at 14.7 psia & 70°F

## Revenue Collected From Federal Leaseholds

	Month*	FYTD*
Fee Sales & Royalties	\$586,845	\$2,761,173
Natural Gas Royalties (1)	\$2,643	\$12,174
Natural Gas Rentals	\$0	\$0
Other	\$3,834	\$17,337
Revenue Collected from Federal Lease Holds	\$589,585	\$2,777,251

\*Totals do not sum

## Helium Analysis and Evaluation

	Month	FYTD
Number of Sample Request Letters Sent	0	1
Number of Samples Received	0	7
Number of Samples Analyzed	0	12
Total Number of Samples Analyzed For Resources Division	2	23
Total Number of Samples Analyzed (2)	93	350

## U. S. Helium Production

*Domestic*

	CY Volumes
1998 Helium Sold	4,029,755
1999 Helium Sold	4,203,019
2000 Helium Sold	4,564,589
2001 Helium Sold	4,756,719
2002 Helium Sold	4,584,904
2003 Helium Sold	Data Not Complete
2004 Helium Sold (projected)	4,700,000
<b>Estimated Helium Resources (as of 01/01/2003)</b>	<b>305,000,000</b>

	FY-2003	CY-2002
<b>U.S. Helium Exports</b> (3)	1,457,623	1,424,995

(1) Includes drip gas sales & other miscellaneous gas sales.

(2) Includes pipeline, field survey, and other requested analyses.

(3) Data from Department of Commerce - Bureau of the Census.

Table 4 - Federal Acquisition &amp; Storage Operations

January - 2004

All Volumes in Mcf at 14.65 psia &amp; 60°F

	Month			Month	FYTD	Month	FYTD	FYTD	CYTD	Cumulative
	Helium-Gas Mixture	Helium Percent	Helium	Low Purity Helium		Below 50% Helium		Contained Helium		
Purchased										
Cities Service Helex - Jayhawk		---								6,403,147
National Helium Corp. - Liberal		---								11,561,830
Nothern Helex Co. - Bushton		---								4,475,921
Phillips Petroleum - Dumas		---								5,111,036
Phillips Petroleum - Sherman		---								4,624,211
Total purchased										32,176,145

Purchased helium produced/transferred	18,900					475,462	18,900	4,850,740
Balance of purchased helium in storage								27,325,405

**Bureau Plants**

Delivery/Handling Credit	0	---	0			0	13,205,259
Withdrawal	0	---	0			0	7,540,255

**Private Plants**

Helium accepted under terminated contracts (pre-FY96)

16,453,073

Helium redelivered under terminated contracts (pre-FY96)

13,007,062

Pioneer - Fain*										
GPM - Dumas*										
Crescendo - Sunray*										
Air Products - Guymon*										
GPM - Sherhan*										
GPM to APG+										
<i>Total GPM - Sherhan</i>										
Keyes Helium - Sturgis* ^										
Keyes Helium - Sturgis* ^										
<i>Total Keyes Helium - Sturgis* ^</i>										
Pioneer - Satanta*										
Williams - Baker*										
National Helium - Liberal*										
National to APL+										
<i>Total National Helium - Liberal</i>										
Air Products - Liberal*										
Praxair - Jayhawk* ^										
Praxair - Jayhawk* ^										
<i>Total Praxair - Jayhawk* ^</i>										
Amoco to Praxair+										
CIG - Lakin*										
BOC Gases - Otis* ^										
KN Processing - Bushton*										
KNP to Praxair+										
<i>Total KN Processing - Bushton</i>										
Praxair - Bushton*										

**Plant Inactive**

Accepted in storage system	106,194	66.5%	70,604	1,913	5,440	(97)	(941)	269,049	70,604	8,073,276
Redelivered from storage system	(201,967)	69.6%	(140,563)			0	5	(615,339)	(140,563)	(12,227,717)
Total apparent crude produced^	196,668	71.5%	140,683					554,438	140,683	7,731,679
Total apparent crude refined^	(293,074)	72.0%	(211,104)					(901,191)	(211,104)	(12,441,546)

\* Denotes CUSTODY TRANSFER activity in to or out of the crude helium pipeline system

+ Denotes activity between private plants that does not enter the crude helium pipeline system

^ Other sources of helium are accessed by helium refiners, but data are not available to BLM

**Acquisition & Storage Summary - Contained Helium**

	Month	FYTD	Cumulative
Total acquisition	70,604	269,049	69,907,753
Total disposition	140,563	615,339	41,705,106
Total stored in conservation system	(69,959)	(346,290)	28,202,647

Helium in pipeline system plus apparent losses	(1,270,997)
Helium in underground storage	29,473,644

COMPANY PROPRIETARY INFORMATION

Table 4.1 - Helium Storage Contract Activity

January - 2004

All Volumes in Mcf at 14.65 psia &amp; 60°F

	Metered Gas						Transferred Gas		Stored Helium EOM	Charges Billed (\$)**	
	Gross Gas	Helium %	Helium	Helium			Helium			Month	FYTD
	Month			FYTD	CYTD	Cumulative	Month	Cumulative			
Total All Contracts*											
Crude Acquired	106,054	66.5%	70,507	268,108	70,507	25,443,116	114,104	27,874,869			
Crude Disposed	201,964	69.6%	140,563	615,334	140,563	24,053,092	95,204	25,651,882		\$341,171	Storage Fees
Grade-A Rdlvrd	0		0	0	0	1,478,718				\$56,576	RMF Fees
Net/Balance	(95,910)		(70,056)	(347,226)	(70,056)	(88,694)	18,900	2,222,987	2,134,293	\$397,746	\$1,315,223
Total Prior Contracts (TERMINATED)											
Crude Acquired				0	0	17,406,129	0	18,196,898			
Crude Disposed				0	0	11,830,863	0	19,148,768			
Grade-A Rdlvrd				0	0	1,478,718					
Number of trailers				0	0	9,834			0		
BOC Gases, Contract no. 1995-3249											
Crude Acquired											
Crude Disposed											
Net/Balance											
Praxair, Inc., Contract no. 1995-3251 months - projected depletion											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Products, L.P., Contract no. 1995-3256											
Crude Acquired											
Crude Disposed											
Net/Balance											
Oneok Field Services, Contract no. 1995-3258											
Crude Acquired											
Crude Disposed											
Net/Balance											
ExxonMobil Gas Marketing Co., Contract no. 1995-3280											
Crude Acquired											
Crude Disposed											
Net/Balance											
Pioneer, Contract no. 1995-3286											
Crude Acquired											
Crude Disposed											
Net/Balance											
Keyes Helium Co., Contract no. 1995-3287											
Crude Acquired											
Crude Disposed											
Net/Balance											
Messer Griesheim Ind., Contract no. 1998-3283 months - projected depletion											
Crude Acquired											
Crude Disposed											
Net/Balance											
Linde Gas LLC, Contract no. 2001-3282											
Crude Acquired											
Crude Disposed											
Net/Balance											
Mitsui & Co. (U.S.A.), Inc., Contract no. 2002-3289 months - projected depletion											
Crude Acquired											
Crude Disposed											
Net/Balance											
Air Liquide S.A., Contract no. 2003-3284											
Crude Acquired											
Crude Disposed											
Net/Balance											
Government Helium											
Crude Acquired							0	32,176,145			
Crude Disposed:	In Kind Sales						0				
	Open Market/Reserve Sell down						18,900	4,850,740			
Net/Balance									27,325,405		

\*Includes In Kind and Open Market transfers from Government storage

\*\*Rounded to nearest dollar

COMPANY PROPRIETARY INFORMATION

Table 5 - Pipeline &amp; Cliffside Field Operations

January - 2004

All Volumes in Mcf at 14.65 psia &amp; 60°F

	Month		Fiscal Year		Since Start of Conservation Program		Since Field Discovery	
	Gross	Net	Gross	Net	Gross	Net	Gross	Net
<b>Conservation Pipeline</b>								
Beginning of period inventory (1)	44,044	30,756	46,638	32,039	0	0		
Measured to pipeline (2)	253,378	181,584	961,229	669,655	111,837,182	79,852,265		
Measured from pipeline (3)	201,967	140,563	897,307	615,339	46,102,821	32,810,392		
Measured into Bush Dome (4)	41,196	31,404	59,822	45,724	64,416,829	46,283,261		
Calculated inventory (1+2-3-4)	54,259	40,374	50,738	40,631	1,317,532	758,612		
End of period inventory	46,265	32,942	46,265	32,942	46,265	32,942		
Line gain or (loss)	(7,994)	(7,432)	(4,473)	(7,688)	(1,271,266)	(725,670)		
Percent gain (loss) of total measured	-1.610%	-2.102%	-0.233%	-0.578%	-0.572%	-0.457%		
<b>Bush Dome Reservoir Operations</b>								
<i>Conservation gases from all sources</i>								
In underground storage, beg. of period	40,963,079	29,512,296	41,328,824	29,775,145	490,620	490,620	0	0
Injected during period to date	41,196	31,404	59,822	45,724	64,412,688	46,279,915	65,020,588	46,887,815
Withdrawn during period to date	97,152	70,056	481,523	347,226	24,042,334	17,343,040	24,159,614	17,460,320
Helium from Exell-Soncy	0	0	0	0	46,149	46,149	46,149	46,149
Total in underground storage	40,907,123	29,473,644	40,907,123	29,473,644	40,907,123	29,473,644	40,907,123	29,473,644
<i>Native Gas</i>								
Total in place, beg. of period	205,402,044		206,235,982		265,724,755		318,727,000	
Recoverable in place, beg. of period	196,351,044		197,184,982		256,673,755		309,676,000	
Production during period to date	440,988		1,274,926		60,763,699		113,765,944	
Total in place, end of month	204,961,056		204,961,056		204,961,056		204,961,056	
Recoverable in place, end of month	195,910,056		195,910,056		195,910,056		195,910,056	
<i>Native Gas plus Conservation Gases</i>								
Total gases in place, beg. of period	246,365,122		247,564,806		266,215,375		318,727,000	
Total gases in place, end of month	245,868,179		245,868,179		245,868,179		245,868,179	
Change during period	(496,943)		(1,696,627)		(20,347,196)		(72,858,821)	
<i>Ave. reservoir pressure, beg. of period</i>								
Ave. reservoir pressure, beg. of period	631.6		636.3		685.0		814.1	
<b>Tuck Trigg Reservoir Operations</b>								
<i>Native Gas</i>								
Total in place, beg. of period	5,198,688		5,198,688				5,890,000	
Recoverable in place, beg. of period	4,528,688		4,528,688				5,220,000	
Production during period to date	0		0				691,312	
Total in place, end of month	5,198,688		5,198,688				5,198,688	
Recoverable in place, end of month	4,528,688		4,528,688				4,528,688	
<i>Ave. reservoir pressure, beg. of period</i>								
Ave. reservoir pressure, beg. of period	483.7		483.7				548.0	
<b>Natural Gas Sales - Booster Compressor Operations</b>								
<i>Field/HEU Compressor Operations</i>					Totals		Cumulative	
					Month	FYTD		
Spot gas fuel price				\$ per/MMBTU	\$5.58	\$5.12	\$4.31	
Fuel used				total MMBTU	7,854	25,130	135,962	
Field compressor fuel revenue				\$dollars	\$3,625	\$33,219	\$387,658	
HEU compressor fuel credit				\$dollars	\$17,673	\$43,591	\$95,688	
#1 Compressor run time				hours	392	1101	14,587	
#2 Compressor run time				hours	105	1201	6,772	
#3 Compressor run time				hours	196	463	3,902	
<i>Field Compressor Charges</i>					Charges Billed (\$)*			
BOC Gases, Contract no. 1995-3249								
Praxair, Inc., Contract no. 1995-3251								
Air Products, L.P., Contract no. 1995-3256								
Keyes Helium Co., Contract no. 1995-3287								
SubTotal - Cliffside Refiners, LP (provides booster compression services)					(\$61,628)	(\$252,945)	(\$2,962,563)	
Cliffside Refiners, LP, GDA010003 (BLM provided fuel, labor, supplies, etc.)					\$17,832	\$77,761	\$694,254	
Net Total - Cliffside Refiners, LP					(\$43,796)	(\$175,185)	(\$2,268,310)	

\*Rounded to nearest dollar



Table 6 - Helium Enrichment Unit Operations

January - 2004

All Volumes in Mcf at 14.65 psia &amp; 60°F (\*except where noted)

Gas Processed	Month			FYTD			Cumulative		
	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium	Helium-Gas Mixture	Helium Percent	Helium
Plant feed	503,505	19.0%	95,620	1,488,865	16.6%	247,272	4,250,578	14.1%	600,136
Helium product	122,131	75.9%	92,678	305,833	76.7%	234,719	732,050	76.1%	557,239
Residue natural gas	256,406	0.1%	142	724,955	0.0%	157	2,254,599	0.0%	168
Vent, flare & plant losses	127,988	2.2%	2,800	470,440	2.6%	12,396	1,596,187	2.7%	42,729
Helium recovery efficiency			97.1%			95.0%			92.9%

Utility Usage	Month			FYTD			Cumulative		
	Volume*	KWh	Runtime	Volume*	KWh	Runtime	Volume*	KWh	Runtime
Natural gas liquids (*gallons)	50,773			116,866			116,866		
K100 compressor		389,326	652		1,441,233	2,112		6,397,794	6,100
K600 compressor		1,272,463	584		4,087,963	1,848		11,766,442	5,356
K610 compressor			576			1,691			4,627
Dew point control system		25,687	529		59,721	1,230		59,721	1,230
Other electrical usage		226,319	744		837,959	2,952		3,133,644	7,792
Fuel gas (*Mcf)	4,906			12,003			32,710		
Water (*gallons)	4,700			13,941			28,231		

**HEU Runtime & Charges***Enrichment Unit Runtime*

	Month		FYTD		Cumulative	
	Runtime	Percent	Runtime	Percent	Runtime	Percent
Processing feed gas	652	87.6%	2,112	71.5%	6,100	78.3%
Producing natural gas liquids	529	71.1%	1,230	41.7%	1,230	15.8%
Producing helium product	576	77.4%	1,691	57.3%	4,627	59.4%
Producing residue gas	584	78.5%	1,848	62.6%	5,356	68.7%

*Enrichment Unit Charges*

Charges Billed (\$)*		
Reservoir Management Fees (RMF)	\$56,576	\$263,140
Total operating costs	(\$941,176)	(\$3,833,538)
Labor	\$32,270	\$152,893
Compressor fuel	\$9,774	\$39,850
HEU fuel	\$12,467	\$37,965
Electric power	\$64,003	\$442,194
Flare, vent & plant losses	\$346,284	\$1,255,127
Other	\$17,250	\$69,000
<b>Sub Total</b> - Items provided by BLM	<u>\$482,049</u>	<u>\$1,997,030</u>
<b>Total</b> - Cliffside Refiners, LP, GDA030001	(\$459,127)	(\$1,836,508)

\*Rounded to nearest dollar